

Translational Conservation: From Scientist to Conservator to Practitioner

Rationale and Research context

The purpose of the research cluster is to develop “Translational Conservation”, a term borrowed from Translational Medicine, which is a concept that incorporates a “from bench to bedside” approach of continuity in information flow. **The aim is to foster the growth and advancement of meaningful communication and collaboration between scientists, conservators and practitioners.** The cluster will be based on discussion of needs, expectations and feasibility with specific reference to target topics such as a potential interdisciplinary collaborative project on 15th century Chaucer manuscripts. The cluster will highlight the importance of new and existing technologies and historical theories and methodologies to help inform conservation and literary historians using a science based approach. The cluster activities will cover a range of workshops, a symposium and a one-day conference entitled; The Sacrificial Sample, Beyond the Written Word, Representation of Data and Translational Conservation. These activities, which are detailed later within this proposal, are seen as initial points which will promote additional exchange of ideas.

Many projects using science-based technologies have been used to investigate parchment. This wealth of work and knowledge accumulated on parchment has allowed the entrustment and creation of two recent projects that have been conducted on high profile parchment documents; the Domesday Book (in collaboration with the National Archives and the School of Conservation, Denmark) and the Dead Sea Scrolls (in partnership with the John Ryland Library, Manchester). High impact documents are central in attaining and encouraging public awareness and promoting engagement between the public and specialist areas. The work so far has already ignited interest from the public and the academic community.

A potential high profile project to study is the two 15th century Canterbury Tale manuscripts, the Hengwrt manuscript (National Library of Wales) and the Ellesmere manuscript (Huntingdon Library California). It is believed that the same scribe wrote both manuscripts and that the Hengwrt manuscript is the older of the two. Analysis of these manuscripts beyond the written word could enable confirmation of the relative age of the manuscripts and where they were produced. The two manuscripts tell the stories in a different order and there are arguments used by different scholars, mainly based on age of the manuscript, to justify which one is correct; so confirming which is the oldest would be an essential contribution to the debate. The National Library of Wales also holds the Methyr Fragment of the Nun’s Priest’s Tale, which is thought to be even older than the other two manuscripts and could be

subjected to similar analysis. The research cluster will provide an ideal environment to discuss ideas and dating methodologies relating to these texts and thence encourage growth of new collaborative projects.

The proposed activities are based on a series of network cluster workshops and symposiums culminating in a one-day conference. This will promote interaction within the network cluster allowing one of the later stage workshops to interact in a novel approach using the idea of “open source technology”. This is a tool that will facilitate participants to construct the agenda and schedule during the meeting itself. The outcomes of the cluster activities will be of interest to practitioners, conservators, scientists, policy makers and the public.

Aims and Objectives

The research cluster proposed aims to formulate interdisciplinary collaboration and bring together different perspectives of heritage science to further develop the idea of Translational Conservation. The partnership between various communities will facilitate the continued enhancement in knowledge and understanding in this rapidly growing and vital area of parchment conservation heritage. The cluster fits ideally within the ‘Interpretation and Representation’ research theme of the *Science and Heritage Programme* but does contain some overlap into the other research themes. The collaboration of arts and humanities with scientists will help develop the continued advancement of answering key conservation issues using scientific techniques. The major aspiration of this cluster would be to create and enhance communication channels between conservators, practitioners and scientists.

The cluster will host three 1.5-day workshop seminars. The events would be publicised in the UK and internationally using the existing networks of all the investigators involved in the cluster as well as websites and email lists of many conservation, historian and science research groups. The clusters workshops will be used to formulate new ideas and discuss current/future work that would lead to an increase in capacity, capability, awareness and quality of this interdisciplinary area. The research cluster’s activities will culminate in a one-day conference to be offered to a large audience and discipline. This will allow the review of the cluster activities and reflection upon future plans to sustain the collaborations established.

Timetable of activities

Four proposed group activities to be held in London, Edinburgh, Aberystwyth and Cardiff. These are entitled:

1. **The Sacrificial Sample** - A network cluster workshop.
 - To tackle the complex issues of destructive sample analysis.
 - Cost benefit analysis, weighing up which samples are worthwhile in sampling with an insight into the position of the scientists, the conservators and practitioners.
 - The issue of sampling, in particular size, damage, sampling in-situ and the portability of technologies.
 - Horizon scanning together with a debate on the utilisation of promising new technologies.
2. **Beyond the Written Word** - A symposium with two or three invited speakers, which will foster discussion based on the following issues.
 - The information that can be extracted from the writing medium as well as the written text?
 - Turning extracted data into information that can be harnessed by the conservators and practitioners.
 - The use of technology to provide information on the usage of an object during its lifetime.
3. **Representation of Data** - A network cluster workshop. By this point in the cluster activities, the interaction within the network cluster should be at a level of maturity that allows the organisation of the third group activity to be defined by open space technology. This is a tool that will facilitate participants to construct the agenda and schedule during the meeting itself. The meeting will be centralised around two key ideas.
 - Is it possible to improve authenticity using a science-based approach?
 - Understanding the core principles of techniques used in forgery.
4. **Translational Conservation** – A one-day conference to include a key note address from an esteemed invited speaker. The conference will be open to a wider community beyond the core network members.
 - Will encourage capacity building and a chance to formulate the way forward.
 - Who are the real end users?
 - Is science answering the questions that conservation needs answering?

The network workshops and symposiums will be one and a half days in duration with approximately 15 participants from the core membership group. The mini conference will allow the inclusion of a greater field of attendees, approximately 40 delegates.

Workshops are to be conducted over 7-month duration with the proposed activities to be held at the beginning of December, February, April and June. This would allow time for a meeting of the steering committee to address the position of the cluster and the way forward before the Research Cluster conference to be held in July 2009 by the Programme Director and additional clusters.

Key speakers or participants

Principal investigator

- Professor Tim Wess is the Head of Department at the School of Optometry and Vision Science, Cardiff University and Chair of the Physical and Life Sciences Committee for the Science & Technology Facilities Council. In addition to these roles is also the Chair of the Photon Science Governing Body for the New Light Source Project, the Chair of the Environmental & Cultural Heritage beamtime award committee for the European Synchrotron Radiation Facility and a member of the Diamond Light Source Facilities Access Panel.

Co-investigators

- Nancy Bell is the Head of Conservation research at The National Archives in London.
- Professor Diane Watt is Head of the English Department at Aberystwyth University and is the Deputy Director of the Institute for Medieval and Early Modern Studies (IMEMS). Her main research interests are in medieval English literature as well as early-modern English and Middle-Scots literature.

Steering committee (in addition to CoI and PIs)

- Professor Neville Greaves is the Institute Director for the Institute of Physics and Mathematics at Aberystwyth University. He is also Director of the Centre for Advanced Functional Materials and Devices (CAFMaD). His research interests are materials under investigation including glasses, ceramics and other disordered systems. His expertise cover a wide range of scientific techniques including Synchrotron Radiation methods, Nuclear Magnetic Resonance and laser optical ellipsometry to name a few.
- Professor Andrew Evans is the Director of Research at the Institute of Physics and Mathematics, Aberystwyth University. He is also involved

in the development of an X-ray beamline project at DIAMOND synchrotron (CELT-SR). His research involves the application and development of spectroscopic techniques.

- Linda Ramsay is Head of Conservation at the National Archives for Scotland based in Edinburgh.

Proposed Participants

- Professor Sue Niebrzydowski from the Department of English, Bangor University is a co-convenor for the Institute of Medieval and Early Modern Studies (IMEMS). Her work covers the dialogue between literature and cultural texts in particular reference to women and medieval womanhood.
- Professor Linne Mooney is a Medieval English Palaeography Chair at the University of York who has won international acclaim for discovering the identity of the scribe, Adam Pinkhurst, who worked for Chaucer. Her research interests include Middle English texts, manuscript studies and studies of authorship and distribution of Middle English texts.
- Professor Helen Fulton is based in the English Department at Swansea University where her work centres on medieval English and Welsh literatures and languages. She also has an interest in discourse and cultural theory.
- Andrew Green is from The National Library of Wales located in Aberystwyth where he is chief executive and accounting officer of the Library.
- Helen Shelton is part of Collection Care at the British Library.
- René Larsen is from the School of Conservation at the Royal Danish Academy of Fine Arts, Denmark. He is interested in deterioration, conservation and restoration of books and objects of leather, parchment and other hide materials. He was also instrumental in the collaborative project, The Improved damage assessment of parchment (IDAP).
- Dr Graham Davies is based at the School of Medicine and Dentistry at Queen Mary University London where he studies the advancement of X-ray microtomography apparatus and its applications to the study of biological hard tissues and various non-biological materials.
- David Howell is Head of Conservation and Collection Care at the Bodleian Library, University of Oxford.
- Julian Thomas is part of The National Library for Wales, Aberystwyth where he is Head of Binding and Conservation and the Manager of the Conservation Treatment Unit.

Day-to-Day administration and organisation

The day-to-day administration and organisation of the research cluster will be co-ordinated by a team based in the School of Optometry and Vision Science at Cardiff University, including Kate Thomas, Lee Gonzalez and Dr Donna Lammie

Leadership, management and co-ordination

The steering committee will meet three times to discuss the organisation of the workshops, symposiums and one-day conference. Additional visits may be arranged when necessary, but mainly the committee will maintain contact electronically. General administration and co-ordination of the activities will be organised by a team at Cardiff University.